

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference NIS-770-PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/JP 01/03767	International filing date (day/month/year) 01/05/2001	(Earliest) Priority Date (day/month/year) 30/05/2000
Applicant NISSAN MOTOR CO., LTD. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 01/03767

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B60L11/18 H01M8/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60L H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 993 060 A (TOYOTA MOTOR CO LTD) 12 April 2000 (2000-04-12) abstract; figure 1 ---	1, 13, 14
A	EP 0 773 131 A (DAIMLER BENZ AG) 14 May 1997 (1997-05-14) claim 1 ---	1, 13, 14
A	EP 0 798 798 A (TOYOTA MOTOR CO LTD) 1 October 1997 (1997-10-01) cited in the application the whole document --- -/-	1-14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

4 October 2001

Date of mailing of the international search report

12/10/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Beyer, F

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 01/03767

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MOSER T ET AL: "PEM FUEL CELLS: TECHNOLOGY AND APPLICATION IN ELECTRICALLY DRIVEN VEHICLES" EVS - 13. 13TH. INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM. OSAKA, OCT. 13 - 16, 1996. SESSIONS 1A - 4H, EVS. INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM, TOKYO, JVA, JP, vol. 1 SYMP. 13, 13 October 1996 (1996-10-13), pages 680-685, XP000687932 figure 7 ---	1,13,14
A	NADAL M ET AL: "DEVELOPMENT OF A HYBRID FUEL CELL/BATTERY POWERED ELECTRIC VEHICLE" INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, ELSEVIER SCIENCE PUBLISHERS B.V., BARKING, GB, vol. 21, no. 6, 1 June 1996 (1996-06-01), pages 497-505, XP000587909 ISSN: 0360-3199 figure 2 -----	1,13,14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 01/03767

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0993060	A	12-04-2000	JP 2000109301 A	18-04-2000
			JP 2000223140 A	11-08-2000
			EP 0993060 A2	12-04-2000
EP 0773131	A	14-05-1997	DE 19541575 A1	22-05-1997
			EP 0773131 A1	14-05-1997
			US 5877600 A	02-03-1999
EP 0798798	A	01-10-1997	JP 9315801 A	09-12-1997
			CA 2198333 A1	27-09-1997
			EP 0798798 A2	01-10-1997
			US 6165633 A	26-12-2000

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP 01/03767

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B60L11/18 H01M8/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B60L H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 993 060 A (TOYOTA MOTOR CO LTD) 12 April 2000 (2000-04-12) abstract; figure 1	1,13,14
A	EP 0 773 131 A (DAIMLER BENZ AG) 14 May 1997 (1997-05-14) claim 1	1,13,14
A	EP 0 798 798 A (TOYOTA MOTOR CO LTD) 1 October 1997 (1997-10-01) cited in the application the whole document	1-14
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

*** Special categories of cited documents :**

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

4 October 2001

Date of mailing of the international search report

12/10/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Beyer, F

INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/JP 01/03767

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MOSER T ET AL: "PEM FUEL CELLS: TECHNOLOGY AND APPLICATION IN ELECTRICALLY DRIVEN VEHICLES" EVS - 13. 13TH. INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM. OSAKA, OCT. 13 - 16, 1996. SESSIONS 1A - 4H, EVS. INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM, TOKYO, JEVA, JP, vol. 1 SYMP. 13, 13 October 1996 (1996-10-13), pages 680-685, XP000687932 figure 7	1,13,14
A	NADAL M ET AL: "DEVELOPMENT OF A HYBRID FUEL CELL/BATTERY POWERED ELECTRIC VEHICLE" INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, ELSEVIER SCIENCE PUBLISHERS B.V., BARKING, GB, vol. 21, no. 6, 1 June 1996 (1996-06-01), pages 497-505, XP000587909 ISSN: 0360-3199 figure 2	1,13,14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 01/03767

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0993060	A	12-04-2000	JP	2000109301 A	18-04-2000
			JP	2000223140 A	11-08-2000
			EP	0993060 A2	12-04-2000
EP 0773131	A	14-05-1997	DE	19541575 A1	22-05-1997
			EP	0773131 A1	14-05-1997
			US	5877600 A	02-03-1999
EP 0798798	A	01-10-1997	JP	9315801 A	09-12-1997
			CA	2198333 A1	27-09-1997
			EP	0798798 A2	01-10-1997
			US	6165633 A	26-12-2000